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GEOGRAPHIC SCHOOL BULLETINS

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

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May 15, 1944. Vol. XXII. No. 42.

1. Europe's Invasion Coast Is Most-Studied Geography
2. Where Are the Yanks? 12. Iceland
3. Geo-Graphic Brevities: Tatar Pass—Ceylon
4. Subject Index to GEOGRAPHIC SCHOOL BULLETINS, Volume XXII

Because schools and libraries preserve the GEOGRAPHIC SCHOOL BULLETINS for reference, the last issue of the school year includes an index to places, subjects, maps, and illustrations. This index covers the 42 issues from February 22, 1943, through May 15, 1944.



Lionel Green

ICELAND'S FISHERMEN AT SEA HAVE THEIR LADIES' AID ASHORE

The backbone of Iceland's business is a fishbone. In spite of its small population, the island has one of the most important cod fisheries in the world. Icelanders catch more fish per capita (about three tons a year) than any full-sized nation of Europe. To maintain this high level, a large fraction of the population work in the fisheries, the men in trawlers at sea, the women at processing plants ashore. In headkerchiefs, sweaters, overalls, and rubber boots, the modern daughters of old Iceland's Vikings clean, salt, and dry the fish. One of the products they handle is the cod-liver oil that brings sunshine vitamins to American children. The Icelandic girl has a last name compounded of her father's first name plus *dottir*, and she does not change it when she marries. Iceland is one of the strange overseas places where Americans are stationed (Bulletin No. 2).

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GEOGRAPHIC SCHOOL BULLETIN

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Europe's Invasion Coast Is Most-Studied Geography

THROUGHOUT this spring of pre-invasion bombing of Nazi Europe, anxious families of service men and eager students of strategy have pored over one of history's biggest geography problems—the continental shores of Europe and how to invade them.

Nearest to the Allies' arsenal of England is the 1,000-mile coastline from France's westernmost tip, near Brest, to Helder, northern Netherlands port. The greatest overwater distance between England and this coast is 150 miles.

Geographic hazards guard the approaches to this span of Europe's coast. Underwater rock ledges and shoals reach far out from shore. There are no natural harbors of any size. The shore line is barricaded with rock promontories, chalk cliffs, flat marshlands, and sand dunes. Fogs multiply the mariner's problems.

The Brittany-Normandy Right Angle

This continental coast of the English Channel may be divided into 7 sectors. Farthest west is the hazardous and almost harborless Brittany-Normandy right angle lying south and southeast of Plymouth, England. St. Malo, city of 25,000, is its principal port. The Gulf of St. Malo at the right-angle corner includes the Bays of St. Brieuc and Mont St. Michel. Beyond lie the Nazi-held Channel Islands.

The Brittany coast is generally high rocky land, with countless offshore reefs and islets. Low hills and wide shoals mark the coast of Normandy.

The second sector, west to east, is the short stretch at the head of Normandy's Cotentin Peninsula, with Cherbourg as its center, south from Southampton. Except for the bulge at Pas de Calais to the east, this is closest to England (about 60 miles). Much of the shore is low sandy ground in front of plateaus.

Third sector is the wide Bay of the Seine, with 130 miles of varied coast curving into the Seine estuary and the channeled port of Le Havre, in peacetime the second-ranking port of France. Granite and chalk cliffs line the two extremes of the bay; clay and sand hills lead down to the shallow silting Seine estuary.

Dieppe Has Chalk Cliffs

Fourth sector of the coast is the fairly straight and almost solid line of chalk cliffs stretching about 70 miles from Cap d'Antifer (northeast of Le Havre) to Ault, just south of the Somme estuary. Its midpoint, near the 1942 invasion rehearsal stage at Dieppe, is only 60 miles southeast of Beachy Head, England. The forbidding cliff wall is broken at intervals by stream valleys. Fécamp, Dieppe, and Le Tréport spread along such valleys and have artificial harbors capable of receiving large boats. The chalk cliffs are footed by a sea-level rock ledge rarely more than 300 yards wide (illustration, next page).

The fifth sector begins at Ault, where the shore line pivots northward to Boulogne. The chalk cliffs recede inland and give way to a low coastal plain, where farm meadows lie protected from the sea by a storm-deposited wall of stones and sand dunes. Wide estuaries of the Somme, the Authie, and the Canche offer shallow approaches to shore. Boulogne, a peacetime city of 52,000, climbs hills 600 feet high. A few miles of flat coast and sand hills lie between the heights of Boulogne and the steep headland of Cap Gris Nez, where the English Channel reaches its narrowest at Dover Strait.

High land and shore cliffs mark the coast from Cap Gris Nez for seven miles



ICELAND'S OLD GRAY MARE, NOT WHAT SHE USED TO BE, IS PROBABLY BETTER

The famous Iceland pony is descended from horses brought to the island by Viking settlers in the Middle Ages; the modern breed is smaller than the average horse, but is remarkably sturdy and surefooted. This is fortunate, for in railroadless Iceland's roadless hinterland the pony is the sole means of transportation. The island's many short turbulent rivers (right), fed by boiling hot springs and melting snow and glaciers, are treacherous and unpredictable; the morning's warm sun will melt enough snow to cause a flood by afternoon. The rivers that shift their courses across flat valleys are bordered by strips of quicksand. For such rivers bridges do not exist. The best way to ford them is to give free rein to one of the intelligent, strong-swimming ponies. The windswept mountains, treeless plains, wild rivers, and patient ponies are among novelties which Yanks are exploring in Iceland (Bulletin No. 2).

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Where Are the Yanks? 12. Iceland

(This is the twelfth in a series of articles about regions where American service men and women are stationed.)

NO TREES, no trains, no army, no navy, no night in midsummer—Iceland startles Americans with what it doesn't have.

Since the Yanks mounted guard over this island in the North Atlantic, they have found many surprises to write home about—volcanoes that erupt through ice, neat all-electric fishing towns, the Great Geyser, purple-shadowed fjords and white glaciers glinting under the aurora borealis, summer midnight sunlight and winter midmorning sunrises.

Yanks in Iceland have heard tall blondes of Viking ancestry speak the language of Leif Ericson, who discovered America 944 years ago. They have eaten fresh Iceland salmon and smoked lamb and *skyr* (a fancy cottage cheese). They have felt high winds and lightning weather changes. They have worn out their shoes on lava rock. They have seen ponies, ponies everywhere (illustration, inside cover). They have smelled fish on every breeze. They have found that dogs are outlawed from the capital and family names are against the law. (Legally, the Icelanders' last name consists of the father's first name plus *son* for a boy or *dottir* for a girl.)

Iceland Acts as Sea Sentry and Weather Watcher

Proud of the bigness of their own country, Americans are surprised to find little Iceland a full-fledged nation. It is smaller (39,700 square miles) than Virginia, and nine-tenths of it is uninhabited. It has only half as many people (121,600) as metropolitan Richmond. Yet it has its own language; its own literature of sagas, which American college students read; its own ancient parliament—called the Althing—which was 850 years ahead of the U. S. Congress; and one of the world's leading fishing industries (illustration, cover).

Airplanes and submarines have forced this neutral island into the role of northern sentry for Atlantic sea and air lanes, and of weather watcher for the climatic cauldron that cooks up storms for Europe.

Iceland has been united with Denmark since 1380. But on the day after the Nazis moved into Denmark, the Althing suspended the Danish king's power. The next month British forces moved in to protect the island; then in 1941 the Yanks arrived. In May, 1944, Icelanders are deciding by vote whether to remain a kingdom or become an independent republic.

The island is a volcano-lighted beacon in the North Atlantic, marking the Arctic Circle (map, next page). Yanks there are 2,400 miles from Boston, 490 miles from the British Isles, 600 miles from Norway. At Iceland's west coast bases they are only 175 miles from the nearest part of gigantic Greenland.

Island Settled by Runaway Vikings

Yanks on leave gravitate toward Reykjavik, the capital and only city, where a third of the people live. On Iceland's southwestern coast, it has trimmings that few cities of 40,000 can afford—university, museum, national library (with more books in proportion to the population than has the U. S. Library of Congress), radio station, and art gallery. Printing is a major industry, for Iceland publishes far more books per capita than the United States.

Modernistic homes and apartment buildings of reinforced concrete get electricity for light and cooking from a near-by waterfall, draw heat from local hot springs, and thus turn chimneys into ornaments. Reykjavik was the first permanent settlement of rebel Vikings from Norway who colonized Iceland in the 870's.

Americans in Reykjavik are shown the bronze statue of Leif Ericson presented by the U. S. Congress in 1930. It commemorates old Iceland's early efforts to give young America a boost, as recounted in the sagas, after Leif's dragon boat first found the way to North America. Another Icelanders—Thorfinn Karlsefni—headed the continent's first white colonists in 1004 A.D. Columbus wrote of making a round trip to Iceland before his voyages to America.

From Reykjavik the sight-seeing Yank can glimpse Snaefellsjökull silhouetted against the sunset, northwest across the bay of Faxaflói. This is one of Iceland's menagerie of more than 100 volcanoes. Big Katla sprinkled ashes as far away as Scotland in 1918. The loftiest is Oraefajökull, 6,952 feet high. The most famous is Mt. Hekla, in the south, whose fiery depths have been cited as proof of the existence of Hell. Vatnajökull, in the east, is a whole family of

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northeastward through Cap Blanc Nez, where they taper down again into sand hills. Five miles farther is Calais, where nearness to England has produced a harbor city of 75,000. Twenty miles east along the flat coast lies Dunkerque.

The 40-mile coast of Belgium, to the east, is wide and low. Nieuwpoort, Oostende, and Zeebrugge are the principal ports.

Little more than 100 miles east from Britain's East Anglia bulge, the North Sea coast of the Netherlands is itself a wall protecting the depressed land within. Wide and multiple mouths of the Schelde and Maas Rivers make a sea land of Zeeland at the south and lead to canals to the Rhine.

At Hoek van Holland, nine miles southwest of The Hague, is the entrance to the ship canal to Rotterdam. Northward 36 miles is bombed IJmuiden.

Natural sand hills hold off the sea along most of the Netherlands coast. Occasionally, as at Petten, man has had to build great dikes for safety.

Note: The English Channel and North Sea coasts of France, Belgium, and the Netherlands may be located on the National Geographic Society's Map of Central Europe and the Mediterranean. A price list of maps may be obtained from the Society's headquarters in Washington, D. C.

For additional information, see "The Coasts of Normandy and Brittany," in the *National Geographic Magazine* for August, 1943; "Rehearsal at Dieppe," October, 1942; and "Behind Netherlands Sea Ramparts," February, 1940*; and "France's 'Rocket Gun' Coast: An Invasion Doorstep," in the *GEOGRAPHIC SCHOOL BULLETINS*, January 17, 1944. (*Issues marked with an asterisk are included in a list of magazines available to teachers at 10¢ each in groups of ten.*)

Bulletin No. 1, May 15, 1944.



W. Robert Moore

ETRETAT WAS PEACETIME INVASION POINT FOR ENGLISH VACATIONERS

On France's "invasion coast" Etretat faces England's Beachy Head across 70 miles of Channel. Etretat has no harbor, only a little bay between towering chalk cliffs where a riverless valley slopes down to a pebbly beach. Over this shingle shore the fishermen haul their boats out of reach of the tide by means of capstans. The south wall of the bay is the Falaise d'Aval (background), an almost perpendicular cliff. Its point, pierced with a tall opening, resembles a cathedral's flying buttress. Peacetime English invaded Etretat as vacationers to fish, play golf, and swim.

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Geo-Graphic Brevities

TATAR PASS RECALLS INVASION 700 YEARS AGO

THE historic Tatar (or Tartar) Pass reappeared in the news when Russian and Czechoslovak forces reached the threshold of Czechoslovakia.

This pass, one of many through the Carpathian Mountains, carries wrapped up in its name a story of invasions from the east which covers more than 700 years.

The pass lies between Poland and old Czechoslovakia, about 20 miles from the southeasternmost tip of the latter's eastern province, Ruthenia or Carpatho-Ukraine.

Tatar Pass has also been called the Mongol Gate. These names come from the same incident, the passage through the mountain gap of an army of the famous Golden Horde which swept west from Central Asia in 1239, conquered the Muscovites of Russia, and in 1241 pushed on into Poland and Hungary. These invaders were Mongoloid peoples who came to be called Tatars.

Throughout the Middle Ages the armed forces of nations and principalities on both sides of the Carpathians marched through the pass as sovereignties changed in Europe. The pass itself saw important fighting during World War I.

Tatar Pass is given other names in the near-by countries of southeastern Europe. Polish maps, for example, have listed it also as Jablonica Pass. A Czechoslovak name is Jasinsky Pass. A highway traverses the pass. Three miles to the east of the highway, the mountain ridge is penetrated by a railroad.

Note: The Pass of the Tatars is marked on the Society's Map of Central Europe and the Mediterranean.

* * * * *

CEYLON, WATCHDOG ON INDIA'S DOORSTEP

Ceylon, new headquarters of the United States Southeast Asia Command under Admiral Lord Mountbatten, is a base of operations significant not alone for its situation. It is also a source of valuable agricultural and mineral products.

The big island (25,332 square miles) is separated from India by a channel only 20 miles wide. On the map, it seems to hang from India like a giant teardrop pearl.

Ceylon is a British Crown Colony, administered by a governor appointed by the Crown, but aided (according to self-governing features adopted in 1931) by councilmen who are for the most part elected. Both men and women vote.

The estimated population in 1940 was about six million people. The last census showed some 9,000 Europeans and nearly 35,000 Burghers (a mixture of Dutch, Portuguese, and native strains). The capital, Colombo, has about 300,000 people. Picturesque Kandy is about a tenth as large (illustration, end of Index).

Ceylon lies about 760 miles west of the Japanese-held Nicobar and Andaman Islands in the Bay of Bengal. It is 1,050 miles from Calcutta, India's largest city.

Ceylon's No. 1 war-valuable mineral is graphite, used for crucibles (needed for smelting), for dry lubricants, for carbon in dry batteries, and carbon brushes for small motors in airplanes, tanks, and trucks. The graphite found there is the world's leader for high carbon content. Sheet mica is another contribution, for such use as spark plugs, radio condensers, and other electrical parts.

Ranking high among Ceylon's contributions to Allied stocks are such tropical products as rubber, tea, coconuts, citronella, cacao, and cinnamon.

Note: Ceylon is shown on the Society's Map of the Indian Ocean.

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volcanic giants blanketed beneath 3,300 square miles of snow and glaciers.

A cousin of the volcanoes is the Great Geyser—Icelandic for "gusher"—first of the world's steaming fountains to be discovered and the source of their name. Hot springs supply free boiling water to steam-heating systems, swimming pools, Reykjavik's public laundry, and green-houses for growing tomatoes and even bananas.

The biggest harvest is reaped from the sea. Iceland catches more fish per capita—7,000 pounds and up each year—than any European nation. Fishermen haul in cod south of the island in the spring, herring in northern waters in the summer. Icelanders pioneered with the trick of steaming cod livers fresh on board ship to save vitamins. Fish products make up as much as 96 per cent of the exports.

Many fishermen are between-time farmers. Literally making hay while the midnight sun shines, they harvest grass from irrigated fields for the winter feed of 600,000 sheep. Besides hay, in the short summers farmers can raise little more than potatoes, rutabagas, and turnips. About one-half of one per cent of the island's area is under cultivation—the green fringe of lowlands around the pasture lands, glaciers, and lava deserts of the central plateau.

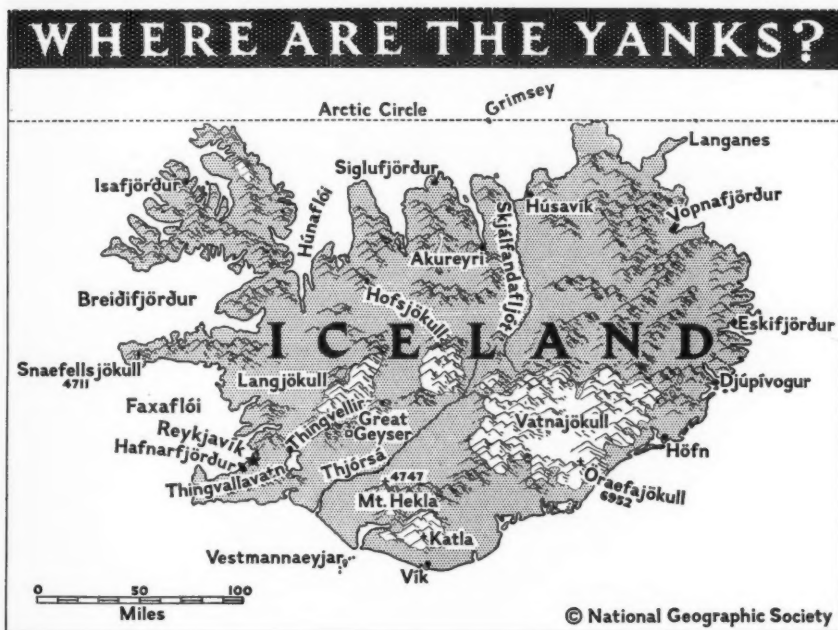
All Iceland's towns stand beside fjords and bays. Akureyri in the north, with 5,300 inhabitants, ranks next to Reykjavik. Siglufjörður 40 miles northwest has barely 3,000 permanent residents, but summer fishing brings four times that many fishermen of several nationalities and makes it the "herring Klondike."

Note: Iceland may be located on the Society's Map of North America.

For additional information, see "Ancient Iceland, New Pawn of War," in the *National Geographic Magazine* for July, 1941*; and "A Walking Tour Across Iceland," April, 1928*.

See also in the GEOGRAPHIC SCHOOL BULLETINS "Iceland, Isle of Frost and Fire, Joins Defense Line-Up," October 6, 1941; "Old-New Iceland and Hands Across the Sea," April 8, 1940.

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ICELAND, THOUGH WEARING AN ICECAP, IS GREENER THAN GREENLAND

Iceland's ice fields, the *jökull*s, blanket some 5,000 square miles or about one-eighth of the island's area with ice several yards thick. Vatnajökull in the east has the largest glacier blanket between Greenland and Asia. Yet, with an area only one-eighteenth as great as Greenland's, Iceland supports seven times as many people. Touching the Arctic Circle, the island's weather is more remarkable for changeableness than for cold. The broad valleys and coastal plains surround the windy central highlands with a green fringe of cultivated fields, where grass is the principal crop. The plain of Thingvellir, beside the lake of Thingvallavatn, was the meeting place of the historic outdoor Althing, the "Grandmother of Parliaments." Mt. Hekla, most widely known of Iceland's many volcanoes, has been active on the average of about twice a century.

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Aden Protectorate: Ill.: Camel pulling dump cars, Oct. 25, 1943.
Afghanistan: Afghanistan Emerges from Asia's Middle Ages, May 8, 1944.
 Additional ill.: Turkoman cavalrymen, Herat, Jan. 3, 1944.
Arabia: *See Aden Protectorate and Yemen.*
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 Burma's Ledo Road a New Life Line for China, Mar. 20, 1944.
 India-Burma Front a Savage Theater of War, 1 ill., Jan. 10, 1943.*
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 China Gains Champions as Liusu Arm Against Japs, Mar. 29, 1943.*
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 Hunan Has Metal Riches and Stair-Climbing Wheelbarrows, Nov. 29, 1943.
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Chosen: *See Korea.*
India: Bengal, Scene of Famine, Hungers for Burma's Rice, Nov. 15, 1943.
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 Pir Pagora, Late Leader of India's Terrorist Hurs, May 3, 1943.*
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Iran: Where Are the Yanks? 8. Iran, 2 ills., 1 map, Apr. 17, 1944.
Iraq: Ills.: Loading cargo plane, Dec. 13, 1943. Road marker, Mar. 8, 1943.
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Korea: Ill.: Seoul, Korea, Jan. 3, 1944.
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Manchukuo: *See Manchuria.*
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Siam: *See Thailand.*
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 Remodeled Turkey Still a Doorstep to War Theaters, May 17, 1943.
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Yemen: Yemen, Queen of Sheba Land, Slams Its Door on Foreigners, May 10, 1943.*

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 Europe's Invasion Coast Is Most-Studied Geography, May 15, 1944.
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Adriatic Sea: Old Adriatic Battlefronts See New Battles, 3 ills., Jan. 10, 1944.
Albania: Albania Struggles to Divorce Italy as Allied Bombs Fall, Dec. 6, 1943.
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Denmark: Defiant Denmark: Land of Forward-Looking Farmers, 2 ills., Oct. 11, 1943.
Eire: Eire, Land of Many Contradictions, Apr. 3, 1944.
England: Bombed Essex County Has American Ties, 1 ill., Apr. 12, 1943.*
 Additional ills.: London subway used as air raid shelter, Apr. 19, 1943. Mount's Bay, Jan 17, 1944.
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Corsica: Corsica: Mediterranean Hornets' Nest, Oct. 25, 1943.
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Dominican Republic: Dominican Republic's Expedition to Haiti, 2 ills., 1 map, Mar. 22, 1943.
Ellice Islands: Pacific Pin-Point Isles Wear Stars and Stripes, Oct. 18, 1943.
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Haiti: French-Speaking Haiti Unique in Latin American Family, 2 ills., 1 map, Mar. 29, 1943.
Hawaii: Ill.: Kilauea Crater, Mauna Loa, air view, Feb. 21, 1944.
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Iceland: Where Are the Yanks? 12. Iceland, 2 ills., 1 map, May 15, 1944.
Jamaica: Bananas Into Alcohol Is War Plan in Jamaica, 1 ill., May 1, 1944.*
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 New Guinea Battlefields Leap from Jungle to Headlines, 2 ills., Nov. 8, 1943.
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 Tobacco Is Money in New Guinea, 1 ill., Feb. 14, 1944.*
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Palmyra: Palmyra, Once Isle Without a Country, Now U. S. Possession, Apr. 12, 1943.*
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 Flying Freight Cars Take to the Sky, Dec. 13, 1943.
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Pigeon Messengers Show New Tricks in Fast-Paced War, May 3, 1943.
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- U. S. War Effort:** Chrysanthemums War on Man's Insect Enemies, Jan. 24, 1944.
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- Colorado:** Colorado's Berthoud Pass Helped Westward Pioneers, May 1, 1944.
- District of Columbia:** Jefferson Memorial in War Capital Honors Fighting Civilian, 2 ill., Apr. 12, 1943.
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- Florida:** Oranges: A Bright Spot in Economic Geography, Dec. 6, 1943.
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- Great Lakes:** Great Lakes Ore Traffic a Sign of Spring, Apr. 17, 1944.
- Indiana:** Ill.: Peppermint still, Dec. 13, 1943.
- Kentucky:** Ill.: Tobacco planting machinery, Feb. 14, 1944.
- Michigan:** Ill.: Loading dock, Marquette, Feb. 17, 1944.
- Minnesota:** Ill.: Itasca State Park, Nov. 15, 1943; Peat field, Jan. 10, 1944.
- New Jersey:** Ill.: Sailboats, Bivalve, Feb. 22, 1943.
- New Mexico:** Ill.: Sweet potato field, Nov. 22, 1943.
- Oklahoma:** Ill.: Prospecting for oil, Feb. 14, 1944.
- Tennessee:** TVA Geography-Makers Turn Tennessee River to Lakes, 2 ill., Jan. 31, 1944.*
- Texas:** United States Spouts Oil in More than Half of States, Dec. 6, 1943.
Additional ill.: Harvesting rice, Nov. 15, 1943.
- Wisconsin:** Ill.: Nicolet National Forest, Apr. 17, 1944.
- Territories and Insular Possessions:** See North America: Alaska; and Islands: Aleutian Islands, Hawaii, and Palmyra.

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- General:** Latin American Series: 10, Venezuela; 11, Mexico; 12, Panama; 13, Cuba; 14, Dominican Republic; 15, Haiti; 16, Nicaragua; 17, Costa Rica; 18, Honduras; 19, El Salvador; 20, Guatemala (see under countries for titles and dates).
Pan American Highway Adds New Links to Vast Travel Network, 3 ill., May 17, 1943.
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- Costa Rica:** Costa Rica, Where "Little Landers" Prosper, 1 ill., 1 map, Apr. 12, 1943.
- Guatemala:** Guatemala, the "Tropical Switzerland," 2 ill., 1 map, May 10, 1943.
- Honduras:** Honduras, Number One Banana Land, 2 ill., 1 map, Apr. 19, 1943.
- Nicaragua:** Nicaragua of the "Great Lakes," 2 ill., 1 map, Apr. 5, 1943.
- Panama:** Panama, a Link and a Gash Between Continents, 2 ill., 1 map, Mar. 8, 1943.
- Salvador:** Compact El Salvador, Where People and Crops Are Concentrated, 2 ill., 1 map, May 3, 1943.

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Western Hemisphere Quinine to Replace East Indies Product, Feb. 28, 1944.
- Argentina:** Argentina, Meat and Grain Land, Yields Metals Too, Mar. 27, 1944.
Argentina's San Juan Had Quake Warning 50 Years Ago, Feb. 7, 1944.
Revived Rail Link Joins Chile and Argentina, Apr. 3, 1944.
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- Bolivia:** Bolivia: Mountain Warehouse of War Materials, 2 ill., Jan. 24, 1944.
Additional ill.: Potato harvesters, Mar. 27, 1944.
- Brazil:** Brazil's Babassu Nut Business May Compete with Coffee, Feb. 14, 1944.*
Brazil's "Wild West" Mato Grosso Attracts Explorers, Nov. 8, 1943.
Gas Shortage Puts Alligator into Oil Business, Jan. 3, 1944.*
New Federal Territories Fringe Brazil, Mar. 13, 1944.
Additional ill.: Sacks of cotton, Patos, Brazil, Nov. 8, 1943.
- Chile:** Chile, Enriched by Sea Frontage, to Harness River Power, Nov. 29, 1943.
Recent Coal Discoveries Add to Chile's Mineral Wealth, Mar. 20, 1944.
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Additional ill.: Santiago, May 17, 1943.
- French Guiana:** French Guiana Joins the United Nations, Apr. 12, 1943.
- Peru:** Inca Farmers, Tamers of Food Plants, Knew Rationing, May 10, 1943.
Paiche, Amazon's Biggest Fish, Now Feeds War Workers, Jan. 24, 1944.
Potato, Cool Climate Crop, First Found near Equator, Mar. 27, 1944.
- Surinam:** Ill.: Steamer, Cottica River, Jan. 17, 1944.
- Venezuela:** Oil-Rich Venezuela Has Many Natural Resources, 2 ill., 1 map, Feb. 22, 1943.
Additional ill.: Tacagua Valley, May 17, 1943.

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- Australia:** Little Ant Shall Aid Them—in Australia, 1 ill., Mar. 15, 1943.*
Where Are the Yanks? 7. Australia, 2 ill., 1 map, Apr. 3, 1944.
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- New Zealand:** Ill.: Playing bowls, Rotorua, Feb. 7, 1944.
See also Islands: Upolu.

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- General:** New Guinea to Tokyo: Pacific Path of Island Steppingstones, 1 map, Apr. 5, 1943.
"News" Make Names in Southwest Pacific, 2 ill., Feb. 7, 1944.*
- Admiralty Islands:** Admiralty Islands: Northern Sentinels for New Guinea, Mar. 20, 1944.
- Aleutian Islands:** Spread-Eagle Kiska, Kidnapped Gibraltar of the West Aleutians, May 10, 1943.
Where Are the Yanks? 9. The Aleutians, 2 ill., 1 map, Apr. 24, 1944.

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- Additional ill.:** Family eating, Romania, Jan. 31, 1944. Native eating, Trobriand Islands, Oct. 18, 1943. *See also* Bread, Butter, Candy, Corn, Fish, Fruit, Mushrooms, Oysters, Potatoes, Seaweed, and Soybeans.
- Fruit:** Ladybugs Fight Citrus Pests But Balk at Jap Mealybugs, Feb. 7, 1944.*
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- Fur:** Fur-Bearing Africa Has Trade with United States, 2 ill., Jan. 24, 1944.*
- Grapes:** Ill.: Women picking grapes, Italy, Nov. 22, 1943.
- Harbors and Ports:** New Lifeline Link for Atlantic Shipping, 1 ill., 1 map, Nov. 1, 1943.
Marseille, Home of the Marseillaise, in Nazi Grip, Feb. 21, 1943.
Naples: Italy's No. 3 City and No. 1 Port, 1 ill., Oct. 18, 1943.*
Piraeus: Athens' Gateway to the Sea, Mar. 6, 1944.
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- Imports and Exports:** Cuba, "Sugar Bowl of the Antilles," 2 ill., 1 map, Mar. 15, 1943.
Fur-Bearing Africa Has Trade with United States, 2 ill., Jan. 24, 1944.
Oil-Dicted Spain a Battleground of Economic War, Feb. 21, 1944.
Rich, Productive Argentina Last to Break Axis Ties, 2 ill., Feb. 14, 1944.
- Insecticides:** Chrysanthemums War on Man's Insect Enemies, Jan. 24, 1944.
- Iron and Steel:** Great Lakes Ore Traffic a Sign of Spring, Apr. 17, 1944.
Russian Victories Reclaim Industrial Cities, 2 ill., Nov. 15, 1943.
- Irrigation:** Warring Russia Adds to Uzbek Power Resources, Mar. 29, 1943.
See also Peoples and Cultures: Dams.
- Jute:** Jute, a Cinderella Fiber, Nov. 8, 1943.
- Kapok:** Lowly Milkweed Stars as Kapok Substitute, Oct. 18, 1943.*
- Leather:** Saving Soles Becomes Home Front Duty, Mar. 1, 1943.
- Lumbering:** National Forests Yield Game Along with Timber, 1 ill., Apr. 17, 1944.*
New Uses for "Naval Stores": Rosin and Turpentine Go to War, Nov. 1, 1943.
Additional ill.: Elephants pulling teak logs, Burma, Apr. 19, 1943. Log jam, Beauchêne River, Canada, Mar. 27, 1944.
- Manganese:** Nikolai Is Rich Ukraine Source of Manganese, Feb. 28, 1944.*
- Markets and Venders:** Bazaar, Herat, Afghanistan, May 8, 1944. Hat shop, Panama, Mar. 8, 1943.
Indian selling salt, Mexico, Feb. 21, 1944. Open-air market, Split, Yugoslavia, Nov. 8, 1943. Ruins of market place, Rome, Nov. 29, 1943. Selling copra, Netherlands Indies, Apr. 24, 1944.
- Metals:** *See* Aluminum, Antimony, Beryllium, Bismuth, Iron and Steel, Manganese, Radium, Tantalum, Tin, and Tungsten.
- Milkweed:** Lowly Milkweed Stars as Kapok Substitute, Oct. 18, 1943.*
- Mills:** Ill.: Grinding grain, Romania, Apr. 24, 1944. Windmill for refining salt, Sicily, Mar. 7, 1943.
- Mines and Minerals:** Bolivia: Mountain Warehouse of Minerals, 2 ill., Jan. 24, 1944.
Unscrambling Sea Water Saves Lives, Makes Minerals, Oct. 25, 1943.
Additional ill.: Nitrate deposits, Chile, Mar. 20, 1944.
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- Mint:** Christmas Candies Short on Mint, Dec. 13, 1943.
- Mushrooms:** Mushrooms: A Wild Food Tamed for Fine Taste, Jan. 3, 1944.
- Nylon:** Nylon Swan Engulfed in Short and Sheer Career, Mar. 8, 1943.*
- Oil:** Gas Shortage Puts Alligator into Oil Business, Jan. 3, 1944.*
Maikop Wells Supplied Less Than Tenth of Russian Oil, Jan. 31, 1943.*
Romania's Oil Fields: Prime Target of the Balkan Front, May 1, 1944.
Science Cuts Gamble on Wildcat Oil Wells, Feb. 14, 1944.
United States Spouts Oil in More Than Half of States, Dec. 6, 1943.
- Olives:** Unrationed Olive, One of Western Man's Oldest Foods, Mar. 15, 1943.
- Oranges:** Oranges: A Bright Spot in Economic Geography, Dec. 6, 1943.
- Oysters:** Oyster Industry an "Early American" Saved by Conservation, Feb. 22, 1943.
Additional ill.: Gilbert Islands, Dec. 13, 1943.
- Paper:** Paper Is Fighting on Many Fronts, 1 ill., Feb. 28, 1944.*
- Peanuts:** Ill.: Dakar, French West Africa, Oct. 4, 1943.
- Peat:** Peat Pinch-Hits for Cousin Coal, Jan. 10, 1944.
- Potatoes:** Potato, Cool Climate Crop, First Found near Equator, Mar. 27, 1944.
Thanksgiving Menu Gets Sweet Potatoes from Indians, Nov. 22, 1943.
- Power Plants:** TVA Geography-Makers Turn Tennessee River to Lakes, 2 ill., Jan. 31, 1944.*
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- Quinine:** Western Hemisphere Quinine to Replace East Indies Product, Feb. 28, 1944.
- Radium:** Elusive Radium: A Metal of Paradoxes, Apr. 24, 1944.
- Rice:** United States Rice Crop Tops Records, 2 ill., Nov. 15, 1943.
- Rosin:** New Uses for "Naval Stores": Rosin and Turpentine Go to War, Nov. 1, 1943.
- Salt:** Whose Side Are the Chotts On? Apr. 12, 1943.
Additional ill.: Camel pulling dump cars loaded with salt, Aden, Oct. 25, 1943. Indian selling salt, Mexico, Feb. 21, 1944. Windmill for refining salt, Sicily, Mar. 1, 1943.
- Seaweed:** "New" Seaweed Food Long Known to Chinese, 1 ill., Jan. 17, 1944.*
- Sheep and Sheep Raising:** Where Are the Yanks? 7. Australia, 2 ill., 1 map, Apr. 3, 1944.
- Silk:** Ill.: Cocoons, Bulgaria, Oct. 18, 1943; Silk factory, Beirut, Levant States, Dec. 6, 1943.
- Sisal:** Ill.: Drying sisal, Haiti, Mar. 29, 1943.
- Soybeans:** Soybean, Old Chinese Food, Now Aiding U. S. War Effort, Mar. 22, 1943.
Additional ill.: Unloading soybeans, Manchuria, Jan. 3, 1944.
- Sponges:** Expelled from Schools, Sponges Enter War Work, Apr. 5, 1943.
- Steel:** *See* Iron and Steel.
- Sugar:** Cuba, "Sugar Bowl of the Antilles," 2 ill., 1 map, Mar. 15, 1943.
Spanish Tradition Marks Dominican Republic, 2 ill., 1 map, Mar. 22, 1943.
Sicily Turns from Battlefield to Base, 1 map, Oct. 4, 1943.
- Sulphur:** Sulphuric Acid: War Industry's Most Useful Liquid, Feb. 7, 1944.
- Tantalum:** Tantalum Fights, Then Helps Repair the Damage, Jan. 10, 1944.
- Tea:** Ill.: Russians drinking tea, Kharkov, U.S.S.R., Mar. 1, 1943.
- Tin:** Ill.: Tin mine, Bolivia, Jan. 24, 1944.
- Tobacco:** Tobacco Is Money in New Guinea, 1 ill., Feb. 14, 1944.*
- Tungsten:** Argentina, Meat and Grain Land, Yields Metals Too, Mar. 27, 1944.
Additional ill.: Women sorting tungsten, Bolivia, Jan. 24, 1944.
- Turpentine:** New Uses for "Naval Stores": Rosin and Turpentine Go to War, Nov. 1, 1943.

PEOPLES AND CULTURES

- Amusements:** *See* Circuses, Dancers and Dancing, Musicians and Bards, Sports and Games, and Theater.
- Archaeology:** Exploring Continued in Spite of War, Jan. 24, 1944.
Additional ill.: Baalbak, Lebanon, Dec. 6, 1943. Pompeii, Italy, Oct. 4, 1943. Rome, Italy, Nov. 29, 1943. Roman ruins, Tunisia, Mar. 22, 1943.
See also National Geographic Society.
- Architecture:** Jefferson Memorial in War Capital Honors Fighting Civilian, 2 ill., Apr. 12, 1943.
See also Castles; Churches, Mosques, and Temples; Dwellings; Towers; and Walls.
- Art:** Air War Weapons Dreamed 450 Years Ago by Da Vinci, Nov. 8, 1943.
Allies' "Road to Rome" Leads to Cultural Treasures, 2 ill., Nov. 29, 1943.
Additional ill.: Art class, Honduras, Apr. 19, 1943; Painting of paratroopers, Nov. 22, 1943.

- Automobiles:** Ills.: On highway, Alps, Italy, Oct. 4, 1943. Traffic cloverleaf, Stockholm, Sweden, Nov. 22, 1943. Underground parking lot, Mar del Plata, Argentina, Feb. 14, 1944.
- Boats and Ships:** Convey System Stems from Piracy, 1 ill., Nov. 15, 1943.*
Great Lakes Ore Traffic a Sign of Spring, Apr. 17, 1944.
Additional ills.: Aluminum boat used as pontoon, Alaska Highway, Canada, Jan. 17, 1944. Barges, Sungari River, Manchuria, Jan. 3, 1944. Canoes: Minnesota, Nov. 15, 1943; outriggers, Gilbert Islands, Dec. 13, 1943; New Guinea, Mar. 29, 1943. Junks, Dairen, Manchuria, Mar. 22, 1943. Fishing boats: On beach, Etretat, France, May 15, 1944; in Pontine Lagoon, Italy, Feb. 28, 1944. Gondolas, Venice, Italy, Mar. 13, 1944. Japanese transports (air view), Aleutians, May 10, 1943, and New Britain, May 8, 1944. Motor boat, Copenhagen, Denmark, Oct. 11, 1943. Sailboats: Adriatic Sea, Jan. 10, 1944; Bivalve, New Jersey, Feb. 22, 1943; Lake Como, Italy, Oct. 25, 1943; Piraeus, Greece, Mar. 6, 1944; Truk, Mar. 13, 1944. Ships: Danzig, Nov. 1, 1943; dropping depth charge, North Atlantic, Oct. 11, 1943; ore ship, Marquette, Michigan, Apr. 17, 1944; Piraeus, Greece: Mar. 6, 1944; Marseille, France, Feb. 22, 1943. Speedboat, Black Sea, U.S.S.R., May 1, 1944. Steam launch, Tung Ting Lake, China, Nov. 29, 1943. Steamer, Cottica River, Surinam, Jan. 17, 1944.
- Bridges:** Ills.: Pontoon for bridge, Alaska Highway, Canada, Jan. 17, 1944; Kurfürsten Bridge, Berlin, Germany, Dec. 13, 1943; Rhine River, Cologne, Germany, Feb. 22, 1943; Seyhan River, Adana, Turkey, Mar. 1, 1943.
- Canals:** Illmuiden, Nazi E-Boat Nest in the Netherlands, Apr. 17, 1944.*
Ills.: Copenhagen, Denmark, Oct. 11, 1943; Venice, Italy, Mar. 13, 1944.
- Carts and Wagons:** Ills.: Cuba, Mar. 15, 1943; England, Jan. 17, 1944; Estonia, Feb. 28, 1944; Manchuria, Mar. 22, 1943; Sicily, Mar. 6, 1944; Turkey, Jan. 17, 1944.
- Convoys:** Convey System Stems from Piracy, 1 ill., Nov. 15, 1943.*
- Draft animals:** See Natural History: Camels, Donkeys, Elephants, Horses, Llamas, Oxen, Reindeer, and Water Buffalo.
- Highways and Roads:** Appian Way, an Allied Road to Rome, Nov. 1, 1943.
Burma's Ledo Road a New Life Line for China, Mar. 20, 1944.
Engineering Works of 1943 Spurred by War Needs, 3 ill., Jan. 17, 1944.
Pan American Highway Adds New Links to Vast Travel Network, 3 ill., May 17, 1943.
Additional ill.: Alps, Italy, Oct. 4, 1943. Yugoslavia, Nov. 8, 1943. Appian Way, Brindisi, Italy, Jan. 10, 1944. Road marker, Iraq, Mar. 8, 1943. Traffic cloverleaf, Stockholm, Sweden, Nov. 22, 1943.
- Pigeons:** Pigeon Messengers Show New Tricks in Fast-Paced War, May 3, 1943.
- Pipe Lines:** Engineering Works of 1943 Spurred by War Needs, 3 ill., Jan. 17, 1944.
Ill.: Moreni oil field, Romania, May 1, 1944.
- Radio:** Radar Just One Offspring of Up-and-Coming Electronics Family, Apr. 3, 1944.
Sun Spots Are Only Woes of the Sun's Daily Work, Nov. 29, 1943.
- Railroads:** Revived Rail Link Joins Chile and Argentina, Apr. 3, 1944.
Additional ill.: Armored train, U.S.S.R., Oct. 11, 1943. Camel pulling dump cars, Aden, Oct. 25, 1943. Locomotive, Iran, Apr. 17, 1944. Tracks: Spain, Feb. 21, 1944; Yugoslavia, Nov. 8, 1943.
- Rivers:** Dnepr Line a Russian Battlefield Again, Mar. 15, 1943.
Freed Stalingrad Uncorks the Volga, Feb. 22, 1943.
TVA Geography-Makers Turn Tennessee River to Lakes, 2 ill., Jan. 31, 1944.*
See also Physical Geography: Rivers.
- Subways:** Europe Still Leads U. S. in Subways, Apr. 19, 1943.
- Telephones:** Ill.: Portable telephone, Jan. 17, 1944.
- Television:** Ill.: Television set, Apr. 3, 1944.
- Tractors:** Ill.: State Farm, U.S.S.R., Mar. 8, 1943. Tractor pulling plow, Minnesota, Jan. 10, 1944.
- Trucks:** Ill.: Itri, Italy, Nov. 1, 1943.

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- General:** Engineering Works of 1943 Spurred by War Needs, 3 ill., Jan. 17, 1944.
- Agriculture:** Defiant Denmark: Land of Forward-Looking Farmers, 2 ill., Oct. 11, 1943.
Inca Farmers, Tamers of Food Plants, Knew Rationing, May 10, 1943.
Additional ill.: Farm machinery, State Farm, U.S.S.R., Mar. 8, 1943. Harvesting implements, Romania, Jan. 31, 1944. Tobacco planting machinery, Kentucky, Feb. 14, 1944. Tractor-drawn plow, Jan. 10, 1944.
See also Cattle and Cattle Raising, Coffee, Corn, Cotton, Dairying, Fruit, Irrigation, Jute, Mint, Mushrooms, Peanuts, Potatoes, Rice, Sheep and Sheep Raising, Sisal, Soybeans, Sugar, Tea and Tobacco.
- Alcohol:** Bananas into Alcohol Is War Plan in Jamaica, 1 ill., May 1, 1944.*
- Aluminum:** Ill.: Aluminum plant, U.S.S.R., Nov. 15, 1943. Washing bauxite, Jan. 31, 1944.
- Amber:** Königsberg Bombed by Russians, Is World's Amber Capital, 1 ill., May 3, 1943.*
- Antimony:** Antimony: A Teamwork Metal, Jan. 17, 1944.
Argentina, Meat and Grain Land, Yields Metals Too, Mar. 27, 1944.
- Babassu Nuts:** Brazil's Babassu Nut Business May Compete with Coffee, Feb. 14, 1944.*
- Bamboo:** Bamboo, Army Emergency Food, An Old Oriental "Handy Andy", Oct. 4, 1943.*
- Bananas:** Bananas into Alcohol Is War Plan in Jamaica, 1 ill., May 1, 1944.*
Honduras, Number One Banana Land, 2 ill., 1 map, Apr. 19, 1943.
Additional ill.: Mexico, May 17, 1943.
- Bauxite:** See Aluminum.
- Beryllium:** Argentina, Meat and Grain Land, Yields Metals Too, Mar. 27, 1944.
War-Baby Beryllium a New Magic Metal, Oct. 18, 1943.
- Bismuth:** Versatile Bismuth Helps Planes to Fly and Mirrors to Reflect, Jan. 31, 1944.
- Bread:** Ills.: Croat woman carrying bread, Yugoslavia, Jan. 10, 1944. Swedish women making bread, Nov. 22, 1943.
- Butter:** Butter Proves Mrs. America's Most-Missed Food, 1 ill., Mar. 6, 1944.*
- Candy:** Christmas Candies Short on M.M.T., Dec. 13, 1943.
- Cattle and Cattle Raising:** Saving Soles Becomes Home Front Duty, Mar. 1, 1943.
Ills.: Cattle, Finland, Mar. 6, 1944; Zebu, Brazil, Mar. 13, 1944.
- Cherries:** Ill.: Maraschino cherries, Yugoslavia, Nov. 8, 1943.
- Coal:** Recent Coal Discoveries Add to Chile's Mineral Wealth, Mar. 20, 1944.
See also Peat.
- Coconuts:** The Coconut Palm Serves in War and Peace, Apr. 24, 1944.
Additional ill.: Children carrying, Solomons, Oct. 4, 1943. Nauruan drinking from, Jan. 3, 1944.
- Coffee:** Ills.: Drying coffee beans: Costa Rica, Apr. 12, 1943; El Salvador, May 3, 1943.
- Copra:** See Coconuts.
- Cork:** Ill.: Sardinia, Oct. 11, 1943.
- Corn:** Ill.: Husking corn, Hungary, Apr. 17, 1944.
- Cotton:** Ill.: Sacks of cotton, Patos, Brazil, Nov. 8, 1943.
- Dairying:** Ill.: Milking goats, Switzerland, Jan. 3, 1944.
- Dates:** Dates for Yanks in North Africa? Plenty in Tozeur! 1 ill., Apr. 5, 1943.*
- Fish and Fisheries:** Paiche, Amazon's Biggest Fish, Now Feeds War Workers, Jan. 24, 1944.*
Ills.: Basket fish traps, New Britain, Apr. 24, 1944. Sardine fishermen, Adriatic Sea, Jan. 10, 1944. Gilbertese fish dance, Feb. 28, 1944. Sun-dried bonito, Caroline Islands, Feb. 14, 1944.
See also Oysters.
- Flowers:** Chrysanthemums War on Man's Insect Enemies, Jan. 24, 1944.
- Food:** Bamboo, Army Emergency Food, An Old Oriental "Handy Andy", Oct. 4, 1943.*
Italy's Cupboard Is Nearly Bare, 1 ill., Nov. 22, 1943.*
"New" Seaweed Food Long Known to Chinese, 1 ill., Jan. 17, 1944.*
Uncle Sam to Slice Steaks from Alaska's Reindeer Riches, May 10, 1943.

Sculptures—Continued

- Additional ill.: Ancient stone sculpture, Nicaragua, Apr. 5, 1943. Cow, temple courtyard, Bangkok, Thailand, Nov. 29, 1943. Marble elephant, Calcutta, India, Nov. 15, 1943. Monkey god, Mexico, Oct. 4, 1943. Statue, Pompeii, Italy, Oct. 4, 1943.
- Shepherds:** Ills.: Iran, Apr. 17, 1944; Madagascar, Oct. 4, 1943.
- Sports and Games:** Ills.: Athletes, Turkey, May 17, 1943. Bowls, New Zealand, Feb. 7, 1944. Fox hunting, England, Apr. 12, 1943. Race track, Guatemala, May 10, 1943. Skiers, Colorado, May 1, 1944. Swimming, Burma, Oct. 25, 1943.
- Superstitions:** Ills.: Caroline Islands, cookstoves, Feb. 14, 1944; Dominican Republic, eggshells on yucca's leaves, Mar. 22, 1943.
- Theater:** Ill.: Drama of Middle Ages given by Kraków students, Poland, May 17, 1943.
- Tombs:** Ills.: Columbus's tomb, Cathedral, Trujillo City, Dominican Republic, Mar. 22, 1943. Taj Mahal, India, Mar. 22, 1943.
- Towers:** Ill.: Leaning Tower, Pisa, Mar. 13, 1944.
- Toys:** Ill.: Dolls, Sardinia, May 3, 1943.
- Walls:** Ills.: City walls, Herat, Afghanistan, May 8, 1944. City walls, Marrakech, Morocco, Feb. 7, 1944.
- Water:** Ill.: Unscrambling Sea Water Saves Lives, Makes Minerals, Oct. 25, 1943.
- Weapons:** Ill.: Girl shooting rifle, U.S.S.R., Nov. 1, 1943. Spear, Madagascar, Oct. 4, 1943.
- Wells:** Ills.: Albania, Dec. 6, 1943; Spain, Feb. 21, 1944.
- Women:** Ills.: Caucasus, Home of Amazons, Famed for Hard-Fighting Peoples, 2 ill., Nov. 1, 1943. Additional ill.: Women canal workers, U.S.S.R., Feb. 7, 1944. Women in fisheries, Iceland, May 15, 1944. Typists, Tokyo, Japan, Apr. 3, 1944.
- Zoos:** Ill.: Buenos Aires zoo, Brazil, Feb. 14, 1944.

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- Alligators:** Gas Shortage Puts Alligators into Oil Business, Jan. 3, 1944.*
- Ants:** Little Ant Shall Aid Them—in Australia, 1 ill., Mar. 15, 1943.*
- Bears:** Ill.: Sakhalin Island, May 8, 1944.
- Birds:** Pigeon Messengers Show New Tricks in Fast-Paced War, May 3, 1943. Additional ill.: Terns, Ascension Island, Jan. 31, 1944.
- Camels:** Ills.: Russia, Oct. 5, 1943; China, Dec. 13, 1943; Outer Mongolia, Apr. 12, 1943; Tunisia, Mar. 20, 1944. U.S.S.R., Feb. 22, 1943.
- Cats:** Ill.: Romania, Jan. 31, 1944.
- Cattle:** See Commerce, Industry, and Agriculture: Cattle and Cattle Raising.
- Deer:** Ill.: Nicolet National Forest, Wisconsin, Apr. 17, 1944.
- Dogs:** Ill.: Chow, China, Oct. 18, 1943.
- Donkeys:** Ills.: Albania, Dec. 6, 1943; Tunisia, Apr. 5, 1943.
- Elephants:** Ill.: Burma, Apr. 19, 1943.
- Goats:** Ills.: Switzerland, Jan. 3, 1944; Tunisia, Mar. 20, 1944.
- Horses:** Ills.: Brazil, Nov. 8, 1943; England, Jan. 17, 1944; Estonia, Feb. 28, 1944; Iceland, May 15, 1944. Kentucky, Feb. 14, 1944; Texas, Nov. 15, 1943; Tunisia, Apr. 19, 1943.
- Klipspringers:** Ill.: Ethiopia, Jan. 24, 1944.
- Ladybugs:** Ladybugs Fight Citrus Pests But Balk at Jap Mealybugs, Feb. 7, 1944.*
- Llamas:** Ill.: Brazil, Feb. 14, 1944.
- Monkeys:** Ill.: Ethiopia, Jan. 24, 1944.
- Oxen:** Ill.: Cuba, Mar. 15, 1943.
- Plants:** Chrysanthemums War on Man's Insect Enemies, Jan. 24, 1944. Lowly Milkweed Stars as Kapok Substitute, Oct. 18, 1943.* Additional ill.: Cacti, Sicily, Mar. 6, 1944. Yucca, Dominican Republic, Mar. 22, 1943. Uncle Sam to Slice Steaks from Alaska's Reindeer Riches, May 10, 1943. See Commerce, Industry, and Agriculture: Sheep and Sheep Raising.
- Reindeer:** Ill.: Termitte hill, Southern Rhodesia, May 8, 1944.
- Sheep:** Ill.: Termitte hill, Southern Rhodesia, May 8, 1944.
- Termites:** Ill.: Termitte hill, Southern Rhodesia, May 8, 1944.
- Tigers:** Ill.: Burma, Jan. 10, 1944.
- Trees:** Bamboo, Army Emergency Food, An Old Oriental "Handy Andy," Oct. 4, 1943.* Coconut Palm Stores in War and Peace, Apr. 24, 1944. New Uses for "Naval Stores": Rosin and Turpentine Go to War (pine trees), Nov. 1, 1943. Additional ill.: Coconut groves, New Guinea, Nov. 8, 1943. Coconut palm, Nauru, Jan. 3, 1944. Date palms, Morocco, Feb. 7, 1944. Ficus tree, Burma, Mar. 20, 1944; New Guinea, Mar. 27, 1944. Palms, Italy, Feb. 28, 1944; Venezuela, Feb. 22, 1943. Sago palm roots, Mar. 20, 1944.
- Wallabies:** Ill.: Australia, Apr. 3, 1944.
- Water Buffalo:** Ill.: Asia's Water Buffalo Aids U. S. Army Air Forces, 1 ill., Mar. 20, 1944.* Additional ill.: Turkey, Jan. 17, 1944.

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- Bays:** Ills.: Nazan Bay, Aleutians, Apr. 24, 1944. Rabaul, New Britain, May 8, 1944.
- Beaches:** Ill.: Beach and cliffs, Etretat, France, May 15, 1944.
- Chotts:** Whose Side Are the Chotts On? Apr. 12, 1943.
- Cliffs:** Ill.: Etretat, France, May 15, 1944.
- Deserts:** Ill.: Gobi Desert, Outer Mongolia, Apr. 12, 1943.
- Gorges:** Ill.: Seldja Gorges, Tunisia, Mar. 20, 1944.
- Lagoons:** Ills.: Pontine Lagoon, Italy, Feb. 28, 1944. Truk, Mar. 13, 1944.
- Lakes:** Great Lakes Ore Traffic a Sign of Spring, Apr. 17, 1944. Additional ill.: Great Bear Lake, Canada, Apr. 24, 1944; Lake Como, Switzerland, Oct. 25, 1943; Lake Managua, Nicaragua, Apr. 5, 1943; Tung Ting Lake, China, Nov. 29, 1943. See also Chotts and Lagoons.
- Marshes:** Beachhead South of Rome a Historic Battleground (Pontine Marshes), Feb. 28, 1944. Pripet Marshes a Mid-Europe Bog, Jan. 10, 1944.*
- Mountains:** Colorado's Berthoud Pass Helped Westward Pioneers, May 1, 1944. Tunisia's Haunted Mountain Battlegrounds, Mar. 22, 1943. Upper Savoy, France's "Boiling-Over Battlefield" in the Alps, Apr. 5, 1943. Additional ill.: Alps, Italy, Oct. 4, 1943; Andes, South America, Feb. 22, 1943, May 17, 1943 (2 ill.), Nov. 29, 1943, Apr. 3, 1944; Atlas Mountains, Morocco, Feb. 7, 1944; Cumberland Mountains, Tennessee, Jan. 31, 1944; Drakensberg, South Africa, Apr. 19, 1943; Kansu Mountains, China, Oct. 18, 1943; Monte Mosor, Yugoslavia, Nov. 8, 1943; Sierra Madre, Mexico, Mar. 1, 1943; Sinkiang, China, Dec. 13, 1943. See also Passes and Volcanoes.
- Oceans:** Earth of the Air Age Portrayed on New Pole-Centered Map, Mar. 29, 1943. Unscrambling Sea Water Saves Lives, Makes Minerals, Oct. 25, 1943.
- Pack Ice:** Ill.: Arctic Ocean, air view, Mar. 29, 1943.
- Passes:** Colorado's Berthoud Pass Helped Westward Pioneers, May 1, 1944. Fair Pass a Funnel from Sbeitla to Sfax, Mar. 8, 1943.* Tatar Pass Recalls Invasion 700 Years Ago, May 15, 1944.*
- Rivers:** Chile, Enriched by Sea Frontage, to Harness River Power, Nov. 29, 1943. Strange Place Names Plare on Russia's Battlefield, Feb. 7, 1944. Additional ill.: Beauchêne R., Canada, Mar. 27, 1944; Clinch R., Tennessee-Virginia, Jan. 31, 1944; Colorado R., Chile, Nov. 29, 1943; Cottica R., Surinam, Jan. 17, 1944; Gez R., China, Dec. 13, 1943; Huanggang R., French Indochina, Mar. 20, 1944; Jumna R., Mar. 22, 1943; Pregel R., Germany, May 3, 1943; Rhine R., Germany, Feb. 22, 1943; Seldja R., Tunisia, Mar. 20, 1944; Seyhan R., Turkey,

- Castles:** Ills.: Dieppe, France, Jan. 17, 1944. Itri, Italy, Nov. 1, 1943. Klis, Yugoslavia, Nov. 8, 1943. Tallinn, Estonia, Feb. 28, 1944.
- Children:** Ills.: Brazil, Feb. 14, 1944; China, Oct. 18, 1943; Corsica, Oct. 25, 1943; French Indochina, Mar. 20, 1944; Iran, Apr. 17, 1944; Iraq, Mar. 8, 1943; Italian baby, Mar. 6, 1944; London, Apr. 19, 1943; Riviera, May 17, 1943; Samoa, Mar. 22, 1943; Solomon Islands, Oct. 4, 1943; Sweden, Nov. 22, 1943; Thailand, Nov. 29, 1943; Tunisia, Mar. 20, 1944; Venezuela, Feb. 22, 1943.
- Churches, Mosques, and Temples:** Ills.: Cathedrals: Berlin, Germany, Dec. 13, 1943; Cologne, Germany, Feb. 22, 1943; Frankfurt, Germany, Mar. 27, 1944; Milan, Italy, Nov. 8, 1943; Panama, ruins of St. Anastasius Cathedral, Mar. 8, 1943; Trujillo City, Dominican Republic, Columbus's tomb in Cathedral, Mar. 22, 1943. Churches: Copenhagen, Denmark, Oct. 11, 1943; Dieppe, France, Jan. 17, 1944; Marseille, France, Feb. 22, 1943; Tallinn, Estonia, Feb. 28, 1944; Veracruz State, Mexico, Mar. 1, 1943; Westminster Abbey, London, England, Mar. 13, 1944. Great Mosque, Kairouan, Tunisia, Apr. 19, 1943. Temples: Jain temple, Calcutta, India, Nov. 15, 1943; Temple of Heaven, Seoul, Korea, Jan. 3, 1944.
- Circuses:** Circuses Take "Spangleland" on Wartime Tours, May 17, 1943.*
- Clocks:** 24-Hour Clock, Used by Army and Navy, an International Convenience, Mar. 15, 1943.*
- Cooking Methods:** Ills.: Caroline Islands, Feb. 14, 1944; Cuba, Mar. 15, 1943; Sweden, Nov. 22, 1943.
- Costumes and Clothing:** Nylon Swan Song Ends Short and Sheer Career, Mar. 8, 1943.*
Saving Soles Becomes Home Front Duty, Mar. 1, 1943.
Shoe Styles of the Past Fed Vanity, Snubbed Comfort, Mar. 29, 1943.
Additional ills.: Bolivia, Jan. 24, 1944; Bulgaria, Oct. 18, 1943; Ceylon, May 15, 1944; Dodecanese Islands, Oct. 11, 1943; Ethiopia, Mar. 6, 1944; Fiji, Mar. 13, 1943; Hungary, Apr. 17, 1944; Lebanon, Dec. 6, 1943; Mexico, Mar. 1, 1943, and May 17, 1943; New Britain tribesmen, Jan. 10, 1944, and May 8, 1944; New Caledonia, Feb. 7, 1944; Poland, medieval costumes, May 17, 1943; Romania, Jan. 31, 1944, Apr. 24, 1944; Sakhalin, Ainus, May 8, 1944; Sardinia, May 3, 1943; Sweden, Nov. 22, 1943; Thailand, Nov. 29, 1943; Tunisia, Apr. 19, 1943; U.S.S.R., Mar. 15, 1943, Mar. 29, 1943. Headgear: Guatemalan masks, May 10, 1943; India, Naga tribesman, Apr. 17, 1944; New Guinea tribesmen, Mar. 27, 1944, Nov. 8, 1943; Panama hat shop, Mar. 8, 1943; Uzbek turbans, U.S.S.R., Mar. 29, 1943.
- Cowboys:** Ill.: Brazil, Nov. 8, 1943.
- Dams:** Dnepr Line a Russian Battlefront Again, Mar. 15, 1943.
 TVA Geography-Makers Turn Tennessee River to Lakes, 2 ill., Jan. 31, 1944.*
 Additional ill.: Tunisia, Apr. 5, 1943.
- Dancers and Dancing:** Ills.: Fish dance, Gilbert Islands, Feb. 28, 1944. Temple dancers, Ceylon, May 15, 1944.
- Dwellings:** Ancient Troglodyte Village a Stop on Rommel's Flight, Mar. 1, 1943.*
 Additional ill.: Argentina, adobe house, Feb. 7, 1944; China, yurt, Dec. 13, 1943; Copenhagen, Denmark, Oct. 11, 1943; Eire, thatched-roof cottage, Apr. 3, 1944; England, mansion, Jan. 17, 1944; Fiji, grass houses, Mar. 13, 1944; Port-au-Prince, Haiti, President's residence, Mar. 29, 1943; Tegucigalpa, Honduras, Presidential Palace, Apr. 19, 1943; New Guinea, house on stilts, Mar. 27, 1944; Nouméa, New Caledonia, May 1, 1944; Rhodes, Dodecanese Islands, Oct. 11, 1943; Romania, march reel dwelling, Jan. 31, 1944; Thailand, house on stilts, Nov. 29, 1943; Truk, bamboo huts, May 17, 1943.
- Expeditions and Exploration:** Brazil's "Wild West" Mato Grosso Attracts Explorers, Nov. 8, 1943.
 Exploring Continued in 1943 in Spite of War, Jan. 24, 1944.
 "News" Make Names in Southwest Pacific, 2 ill., Feb. 7, 1944.*
 See also National Geographic Society.
- Flags:** Ill.: Turkey, May 17, 1943.
- Government:** China Goes West to Win, 3 ill., Oct. 18, 1943.
 Nine Neutrals Leave 93 Per Cent of World at War, 2 ill., Jan. 3, 1944.*
- Handicrafts:** Ills.: Decorating bowls, Honduras, Apr. 19, 1943. Decorating wooden shoes, France, Mar. 29, 1943, Lacquerware, Mexico, Mar. 1, 1943. Spinning, Sweden, Nov. 22, 1943. Making masks, Guatemala, May 10, 1943. Weaving, Sardinia, May 3, 1943.
- Holidays, Celebrations, and Customs:** Ills.: Ceylon, Perahera dancers, May 15, 1944. Marshall Islands, memorial ceremony, Jan. 24, 1944. New Britain, tribal ceremony, Jan. 10, 1944. Sakhalin, Ainus' bear festival, May 8, 1944. Solomon Islands, christening ceremony, Nov. 22, 1943.
- Indians:** Inca Farmers, Tamers of Food Plants, Knew Rationing, May 10, 1943.
 Additional ill.: Chippewas harvesting rice, Minnesota, Nov. 15, 1943. Tarascan Indian women, Mexico, Mar. 1, 1943. Zotzil Indian, Mexico, Feb. 21, 1944. Potato harvesters, Bolivia, Mar. 27, 1944.
- Jade:** La Venta an Ancient Mexican Mecca, Oct. 4, 1943.
- Libraries:** Ill.: City Library, Berlin, Dec. 13, 1943.
- Lighthouses:** Ill.: Europa Point, Gibraltar, Mar. 15, 1943.
- Medals and Decorations:** Teamwork Awards Added to Medals for U. S. War Heroes, Dec. 6, 1943.
- Medicine:** See Agriculture, Industry, and Agriculture.
- Monuments and Memorials:** Jefferson Memorial in War Capital Honors Fighting Civilian, 2 ill., Apr. 12, 1943.
 Wrecked Landmarks That Have Gained in Fame, 2 ill., Mar. 13, 1944.
 Additional ill.: Marble column marking east end of Appian way, Brindisi, Italy, Jan. 10, 1944.
- Museums:** Ill.: Schloss Museum, Berlin, Dec. 13, 1943.
- Musicians and Bards:** Ills.: Azerbaijan ballad singers, U.S.S.R., Nov. 1, 1943. Kanaka singers, Marshall Islands, Jan. 24, 1944. Kirghiz bards, U.S.S.R., Feb. 21, 1944. Tribal musicians, New Britain, Jan. 10, 1944. Uzbek bards, U.S.S.R., Mar. 29, 1943.
- National Archives:** Ill.: Original documents of treaties, Jan. 17, 1944.
- National Forests:** National Forests Yield Game Along with Timber, 1 ill., Apr. 17, 1944.*
 Additional ill.: Arapaho National Forest, Colorado, May 1, 1944.
- National Geographic Society:** Ancient Mexican Ruins Discovered by Geographic Expedition, May 8, 1944.*
 Earth of the Air Age Portrayed on New Pole-Centered Map, Mar. 29, 1943.
 Exploring Continued in 1943 in Spite of War, Jan. 24, 1944.
 Geographic's New Map Shows World in One Piece, 1 ill., Mar. 3, 1944.
 Geographic's Spellings Adopted as Standard for the News, May 1, 1944.
 Japanese Empire Centered on Map for Geographic, Apr. 3, 1944.
 La Venta an Ancient Mexican Mecca, Oct. 4, 1943.
 La Venta Giant Head Comes to Washington, 2 ill., Oct. 25, 1943.
 Sixth Geographic-Smithsonian Expedition Takes Field, Feb. 21, 1944.
 Additional ill.: President, Dr. Gilbert Grosvenor, Oct. 25, 1943.
- Parks:** Ill.: Hasca State Park, Minnesota, Nov. 15, 1943.
 See also National Forests.
- Races and Tribes:** China Gains Champions as Lisus Arm Against Japs, Mar. 29, 1943.*
 Marshall Islands, Markers of Micronesia's Boundary (Kanakas), Jan. 24, 1944.
 Pir Pagora, Late Leader of India's Terrorist Hurs, May 3, 1943.*
 Additional ill.: Ainus, Sakhalin, May 8, 1944. Druse, Levant States, Feb. 14, 1944. Galla girl, Ethiopia, Mar. 6, 1944. Fishermen, Gilbert Islands, Dec. 13, 1943; Feb. 28, 1944. Javanese women, Feb. 28, 1944. Bards, Kirghiz S. S. Republic, U.S.S.R., Feb. 21, 1944. Kirghiz tribesmen, China, Dec. 13, 1943. Loyalty Islanders, Feb. 7, 1944, and May 1, 1944. Mahafaly tribesman, Madagascar, Oct. 4, 1943. Mishmi tribesmen, Burma, Mar. 20, 1944. Naga tribesman, India, Apr. 17, 1944. New Britain tribesmen, Jan. 10, 1944, and May 8, 1944. Tribesmen, New Guinea, Mar. 29, 1943, Nov. 8, 1943, Jan. 31, 1944, Mar. 27, 1944. Padaung women, Oct. 25, 1943. Solomon Islanders, Feb. 21, 1944, Nov. 22, 1943. Southern Rhodesia, Bantus, May 8, 1944. Turkoman cavalrymen, Herat, Afghanistan, Jan. 3, 1944. Zlass tribesmen, Tunisia, Apr. 19, 1943.
- Schools:** Ills.: Corsica, Oct. 25, 1943. Folk high school, Denmark, Oct. 11, 1943. Telephone company's school, Jan. 17, 1944. Typing class, Tokyo, Japan, Apr. 3, 1944. University, Kraków, Poland, May 17, 1943. Venezuela, Feb. 22, 1943.
- Sculptures:** La Venta Giant Head Comes to Washington, 2 ill., Oct. 25, 1943.
 Wrecked Landmarks That Have Gained in Fame, 2 ill., Mar. 13, 1944.

Rivers—Continued

- Mar. 1, 1943; Spree R., Germany, Dec. 13, 1943; Sungari R., Manchuria, Jan. 3, 1944; Tacagua R. Venezuela, May 17, 1943.
See also Transportation: Rivers.
Snow: Colorado's Berthoud Pass Helped Westward Pioneers, May 1, 1944.
Additional ill.: Venice, Italy, Mar. 13, 1944.
Straits and Channels: Europe's Invasion Coast Is Most-Studied Geography, May 15, 1944.
Mediterranean's Sicilian Narrows, Water-Bridge to Europe, Mar. 1, 1943.
Pas de Calais District Is France's Nearest Invasion Coast to England, May 1, 1944.*
Additional ill.: Strait of Gibraltar, Mar. 15, 1943.
Volcanoes: Where Are the Yanks? 12. Iceland, 2 ills., 1 map, May 15, 1944.
Why Can't Volcanoes Be Bombed into Eruption? Feb. 21, 1944.
Additional ills.: Momotombo, Nicaragua, Apr. 5, 1943. Mt. Vesuvius, Italy, Oct. 4, 1943, Oct. 18, 1943.
Waterfalls: Ill.: Hsueh Hsai, Burma, Oct. 25, 1943.
Weather: Italy Is "Surprise Stocking" of Varied Weather Samples, Mar. 13, 1944.
See also Snow and Winds.
Winds: Willy-willy, a Furious Wind, Belies Its Sissified Name, 1 ill., Mar. 8, 1943.*

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- Astronomy:** 400-Year Milestone for Earth-Mover, Sky-Mapper Copernicus, May 17, 1943.
Sun Spots Are Only a Sideshow to the Sun's Daily Work, Nov. 29, 1943.
Chemistry: Sulphuric Acid: War Industry's Most Useful Liquid, Feb. 7, 1944.
This Is the "War of Explosives," 1 ill., Oct. 11, 1943.*
Unsermbling Sea Water Saves Lives, Make Minerals, Oct. 25, 1943.
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CEYLON'S TEMPLE DANCERS KNOW NO RATIONING OF JUNK JEWELRY

Beads and belts and bracelets, bejeweled high-crowned hats, and fancifully draped silken skirts costume these dancers in Kandy's Temple of the Tooth—the Dalada Maligawa—where Buddha's sacred right tooth is hidden from all but the most exalted eyes. Every year in mid-summer the Perahera ceremonies are held in honor of the cherished relic. In a grassy enclosure of the temple these dancers enliven the celebration with their angular, rhythmic routines to the beat of drums and the metallic crash of cymbals. In return for their services to the temple, the dancers are given land. Only men take part in these ceremonies as dancers or musicians.

